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ABSTRACT

Equity in vocational education is of concern for the 17.5 million handicapped persons (ages 17-65) who are potential beneficiaries of vocational education. Handicapped persons meet inequities and barriers of all types, such as architectural, societal, and communication. For equity in vocational education to have genuine relevance for handicapped persons, there must also be equity in employment. Unfortunately, inequities they face in employment are too numerous and complex to be resolved without government intervention, which has come all too slowly. To ensure equity for the handicapped in vocational education, certain issues must be addressed, including compliance with state and federal laws, availability and accessibility of comprehensive vocational education, least restrictive environment and mainstreaming, making individual and programmatic accommodations, policymaking, equity in vocational education funding, preparation of vocational education personnel to teach the handicapped, and need for revision of curriculum materials for fair representation of handicapped persons. (YLB)

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Research and Development Series No. 214H

EQUITY FROM A SPECIAL EDUCATION PERSPECTIVE

Marc E. Huli

SUMMARY Vocational educators have grappled with equity as a problem and have espoused it as a cause since 1963 when Congress issued both an equity mandate and an equity challenge with the passage of the Vocational Education Act. This paper is one of seventeen reports commissioned by the National Center for Research in Vocational Education to meet the equity challenge through a multidisciplinary approach encompassing three perspectives—academic, vocational education, and special interest group advocacy.

The following paper examines equity in vocational education from the perspective of handicapped persons. It begins with a definition of the handicapped individual and data about the numbers of handicapped individuals needing to be served by vocational education programs. A discussion of issues and barriers facing the handicapped includes: current funding disincentives for achieving independence; the underrepresentation of the handicapped in vocational education programs; the attitudes of people responsible for vocational education programs; the problems of segregated vocational education programs and of accommodating the handicapped; the need for adequate funding for vocational education for every handicapped individual; the preparation of vocational educational personnel to teach the handicapped; and the need for revision of curriculum materials.

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INTRODUCTION

Except for a very few people who inherit wealth and a comparatively few who depend solely on public assistance, most people must work in order to acquire the basic necessities of life: food, shelter, clothing, transportation, goods, and services. The same holds true for the amenities of life: sports, recreation, hobbies, entertainment, fine arts, travel, and so on. Because work is a basic medium for acquiring what is needed or desired and because more individuals than ever before want and need to work, the public institutions that prepare people for employment are being compelled to become increasingly egalitarian.

Through the Vocational Education Act (VEA) of 1963 and subsequent vocational legislation (1968, 1976, 1977, 1979), Congress has charted a new course for vocational education by broadening its outreach to all people in all communities. As a result, the vocational education legislation of today provides sufficient justification for the frequently observed dictum: vocational education is for everybody.

Of course, at this point in time, the dictum only delineates the direction in which vocational education is headed; it is not a definitive comment on how far vocational education has advanced. There are barriers yet to be surmounted and practices yet to be implemented before access to and success in vocational education are equitably enjoyed by all segments of society. This paper examines the concept of equity in vocational education from the unique perspective of handicapped persons.

Handicapped Defined

For the purposes of this paper, the term "handicapped" refers to those individuals who have been identified as handicapped under the defining criteria of P.L. 94-142 (The Education of All Handicapped Children Act) or P.L. 93-112 (The Rehabilitation Act of 1963), particularly Section 504. The definitions set forth in these two laws overlap, but not completely.

Under the P.L. 93-112 definition, a handicapped person is:

> Any person who (i) has a physical or mental impairment which substantially limits one or more major life activities, (ii) has a record of such an impairment or (iii) is regarded as having such an impairment. (Section 84.3(j)(1))

In this definition, major life functions include such functions as:

> Caring for one's self, performing manual tasks, walking, seeing, hearing, speaking, breathing, learning and working. (Section 84.3(j)(2))

ABOUT THE AUTHOR

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The P.L. 93-112 definition is unique in that it applies to persons who are regarded or who are treated as functionally impaired when, in fact, there may be no clinical evidence or other documentation of a specific handicap. Under 93-112, two people with identical impairments do not necessarily have the same functional limitations; hence, neither may qualify under the Act as being handicapped. A computer programmer with a spinal cord injury, for example, might suffer no work-related impairment, whereas a heavy equipment operator with the same kind of spinal cord injury might be totally work-disabled (until and unless rehabilitated to assume a different work role). Similarly, a visually-impaired person of school age may not be regarded as mobility impaired under 93-112 as long as public transportation is available to assist the student in getting to and from school as needed. At a later date, should the same individual attend a postsecondary school where there is no public transportation, the visual impairment might then be considered a functional impairment of mobility and under this Act constitute a handicap.

Under P.L. 94-142, there are eleven specific conditions which, if they constitute a need for special education and related services, can result in an individual's being determined handicapped. These classifications include: deaf, deaf-blind, hard-of-hearing, mentally retarded, multihandicapped, orthopedically impaired, other health impaired, seriously emotionally disturbed, speech impaired, visually handicapped, and specific learning disabilities. Each of these conditions is further defined in the regulations for P.L. 94-142 (s)121a.5).

Population Estimates

The exact number of handicapped persons is unknown (Berkowitz 1979). One of the most reliable estimates of handicapped youths is the annual census of children who receive special education services under P.L. 94-142. On December 1, 1979, 3.9 million youths or 8.8 percent of the total school age population were enrolled in special education, and hence classified as handicapped under P.L. 94-142. However, there were wide discrepancies among the states in reporting the number of children being served. For example, according to the December 1979 count, Massachusetts was serving 11.42 percent of the total school age population, whereas in New York only 5.76 percent of the school-age population was receiving special education. When P.L. 94-142 was enacted, the Bureau of Education for the Handicapped, now called the Office for Special Education, estimated that 6 million children or 12 percent of the total school age population qualified for special education. Until there is less disparity among the states in reporting the percent of children served and those eligible to be served, a reliable estimate of the number of handicapped youths will remain unknown.

In table I, an analysis of the 1979-1980 enrollment of handicapped youths is given by handicapping condition.

Table 1

ANALYSIS OF CHILDREN AND YOUTHS BEING SERVED UNDER P.L. 94-142 ON MARCH 1, 1980

Handicapping Conditions	*Total Enrollment*	*% of Total School Age Enrollment*	*% of Handicapped Enrollment*
Specific Learning Disabilities	1,281,379	3.03	31.8
Speech Impaired	1,188,967	2.81	29.5
Mentally Retarded	882,173	2.09	21.9
Seriously Emotionally Disturbed	331,067	0.78	8.2
Other Health Impaired	106,292	0.25	2.6
Orthopedically Impaired	66,248	0.16	1.6
Multihandicapped	61,965	0.15	1.5
Deaf	40,013	0.08	1.0
Hard-of-Hearing	39,394	0.08	0.9
Visually Impaired	32,679	0.08	0.8
Deaf-Blind	2,576	0.01	0.06

Three conditions—specific learning disabilities, mental retardation, and speech impairment—accounted for 83 percent of the total number of youths served in special education during the 1979-1980 school year. Because the speech impaired population is concentrated primarily in the elementary grades, it is evident that the largest groups to be served in vocational education in all categories of handicapping conditions are students with specific learning disabilities and mental retardation. The prevalence of the other handicapping conditions drops sharply, meaning that the demands placed on vocational education to accommodate

students with these conditions will be significantly fewer than for specific learning disabilities or mental retardation.

For the total United States population, an estimate of approximately 30 million disabled persons has been made based on data collected by the National Center for Health Statistics in 1974. The National Center has estimated that there are 2.3 million children under age seventeen who are functionally impaired due to chronic disabling conditions. The estimate for ages seventeen through forty-four is 7.2 million; for ages forty-five through sixty-four it is 10.3 million; and for sixty-five and over it is 9.5 million. According to these estimates, there are at least 17.5 million handicapped persons (ages seventeen through sixty-five) who are potential beneficiaries of vocational education.

THE CONCEPT OF EQUITY

The concept of equity, both as a practical and a theoretical construct, appears frequently in the literature, especially in legal, sociological, and political writings. Because of the protean nature of this concept, a variety of definitions has been ascribed to it. Within this essay, the term will be used broadly and simply to denote fair, impartial, and unbiased treatment of individuals with respect to any right, benefit, privilege, or aid which is offered by or through vocational education.

Equity is an ever evolving concept. As long as legal interpretations continue to be rendered by hearing officers and the courts, the concept of equity will continue to be defined with respect to the participation of handicapped persons in education. Investigations of consumer complaints conducted by the Office for Civil Rights and the Office of Special Education likewise will add substantively to the concept of equity. Thus over time, certain clear notions about equity will emerge and subsequently determine the fairness with which handicapped persons are treated in education, including vocational education.

Equity is often a situation-specific concept, that is to say, the determination of what is fair, just, or appropriate may be entirely dependent on the factors and circumstances that comprise a single case. In one situation, equity may be achieved by treating all students equally with respect to the procedures used to achieve certain instructional goals and objectives. In another case, equity may require that a handicapped student be given an amount of assistance clearly exceeding that given to nonhandicapped students in order to achieve the same instructional objectives.

Equity is a subjective concept. What is deemed fair, unbiased, or just by one vocational teacher, school administrator, state consultant, complaint investigator, judge, or lawmaker may be viewed differently by other persons who function in the same roles. Consequently, persons with equivalent impairments and equivalent needs may receive different treatment as they participate in vocational education, presumably on an equitable basis. Because of its subjective nature, equity cannot ensure equality, even among handicapped persons.

Equity and Equality Contrasted

Herbert J. Gans, author of *More Equality* (1973), speaks to the interdependence of the two concepts: equity and equality. In the words of Gans, "Equity is deficient without equality. Equity requires some degree of equality, for inequality is unfair. Conversely, more equality would itself bring about greater equity . . ." (p. 77). The excerpt presents an important thesis, one which will be repeated several times in this essay: "equality of opportunity does not ensure equality of results" (p. 63). This

fact, says Gans, is illustrated by the rarity with which the poor end up in prestigious professions or end up benefitting from other means of upward mobility. Even if given equal resources, people who start their lives with a disadvantage "rarely benefit significantly from equality of opportunity because, unless they are outstandingly superior in skills or in upward-mobility techniques, they can never catch up with the more fortunate . . ." (p. 64).

Gans concludes that "the only truly egalitarian principle is equality of results, which may require unequal opportunity or treatment for the initially disadvantaged so that they eventually wind up equal in resources or rights" (p. 65).

This thesis—that to achieve equal results for some groups, unequal opportunities or favored treatment may be necessary-will be raised at several points in this essay. Although expressed in different words from those of the sociologist Gans, Oliver Kolstoe (1976), a pioneer in the field of preparing mentally retarded persons for employment, expressed a similar sentiment by saying, "Nothing is more unequal than providing equal opportunities to students with unequal abilities."

Inequities Abound for Handicapped Individuals

Handicapped persons meet inequities on many fronts. Architectural barriers limit accessibility to essential public services, housing, transportation, education, recreation, entertainment, worship, and many other necessities and amenities. Societal barriers result in people being treated in stereotypic fashion, ignored, or avoided. Misinformation and lack of knowledge about handicapped persons causes people to overestimate the needs of some while underestimating the needs—physical, psychological, and spiritual—of others. Communication barriers impose threats to personal safety and restrict accessibility to essential information for these individuals. Information presented in a single medium can have the effect of shutting off the daily news, filmed drama, literature, and theatre for millions of persons with sensory losses or impairments. The lack of appropriate auditory signals, visual signals, or signs can pose a threat to the personal safety of these individuals in the event of emergencies, as well as impose needless inconveniences on a day-to-day basis. Architectural and economic barriers keep handicapped persons segregated from friends, family, and neighbors. Because they can seldom afford to purchase homes, many handicapped persons must put up with insensitive landlords or put up with the boondoggles that so frequently arise in government-subsidized housing projects. Educational barriers segregate the handicapped or deny their participation altogether in basic educational programs and extracurricular activities. Parents of the handicapped are often inadvertently or knowingly made to feel burdensome. The lack of appropriate supplementary aids and services at the elementary and secondary levels and the lack of auxiliary aids

and services at the postsecondary level have the effect of denying handicapped persons the right to reach their full intellectual potential. Employment barriers restrict income potential, deny opportunities for promotions, and limit job satisfaction.

Some penetrating descriptions of the inequities faced daily by handicapped individuals are presented in Frank Bowe's provocative treatise, *Handicapping America* (1978). Some equally discriminating insights on the elimination of these inequities are given in his sequel, *Rehabilitating America* (1980).

Equity in Employment

For equity in vocational education to have genuine relevance for handicapped persons, there must also be equity in employment. Bowe (1978) aptly describes the relevance and importance of work from the perspective of handicapped persons:

> Employment can provide deep personal satisfaction and feelings of self-worth, daily stimulation and challenge, monetary compensation, important fringe benefits, social interaction with a wide variety of people, the opportunity to produce and to create, recreation and enjoyment, and a constant impetus to further personal and professional qrowth. Enforced idleness, by contrast, denies feelings of self-worth, reduces opportunities for human growth through exposure to new experiences, produces bare subsistence-level living, and may instigate feelings of self-hatred and disgust (p. 65).

Notwithstanding the importance that handicapped persons ascribe to work, the majority of disabled adults, from age sixteen to sixty-four, are not employed. Of an estimated 17.5 million handicapped persons who are available for employment, more than 7.7 million are either out of the labor force or are unemployed (Razeghi 1979). The unemployment of youths, especially minorities, according to sociologist Eli Ginsburg, is "not merely a serious problem but a national crisis" (1980, p. 43). Unemployment for white males, aged sixteen to seventeen, was 16 percent in 1978 compared to an unemployment rate of 3 percent for males over the age of twenty-five. For nonwhite males, sixteen and seventeen years old, the unemployment rate for 1978 was 40 percent compared to a 6 percent unemployment rate for nonwhite males over twenty-one. The same unemployment rates held for women (Ginsburg 1980). A review of these data brings to light the fact that handicapped youths—especially minority youths—may face double, even triple jeopardy when attempting to find work.

"The attitudes of employers toward disabled persons," writes Frank Bowe (1978), "traditionally have been considered the greatest obstacle faced by these people and their counselors and teachers" (p. 175). A 1973 study by Colbert (Bowe 1978) showed that Los Angeles employers had less favorable attitudes toward disabled persons than any other group of job applicants, including ex-convicts, minority group members, student radicals, or elderly persons. Other research studies have reported similar findings, especially for persons with physical deformities or behavioral handicaps.

There are many other employment barriers which handicapped persons face: lack of transportation to and from work, lack of accessibility to the work site, lack of job counseling, failure to communicate in a manner that helps coworkers and supervisors understand disabilities, to name but a few.

The inequities faced by handicapped persons in employment are too numerous and too complex to be resolved without government intervention. To everyone's detriment, such intervention has come all too slowly. It was an entire decade after Congress passed legislation to prohibit employment discrimination on the basis of race, color, religion, sex, or national origin (Title VII of the Civil Rights Act of 1964) that similar pieces of legislation were passed to prohibit employment discrimination on the basis of handicap (Sections 504 and 503 of the Rehabilitation Act of 1973).

In recent months, other steps have been taken by the government to increase employment opportunities for disabled persons. Incentives have been offered for hiring disabled Vietnam veterans; government agencies have been required to hire handicapped persons; the President's Committee on Employment of the Handicapped has continued its promotional activities; and several consumer organizations have been funded to carry out work experience programs. Be this as it may, the government has failed to date to address some major obstacles to employment of the handicapped, including obstacles which exist within government itself.

For every dollar that the federal government spends helping handicapped persons become independent, it spends ten dollars on programs that foster dependence. In 1975, 114 billion dollars or 7.9 percent of the Gross National Product (representing federal, state, local, and private enterprise) went toward the support of dependence-oriented programs, whereas only 4 billion dollars were spent on programs to achieve independence (Bowe 1980). To begin to hold the line on the alarming rate at which dependence costs are rising, the number of dollars expended for independence training—including vocational education—must be greatly increased. In addition, there are too many blatant disincentives to employment inherent in the Social Security Disability Insurance (SSDI) and the Supplementary Security Income (SSI) programs. Many handicapped persons,

especially individuals who require attendant care or costly medical care, cannot afford to work, even though they may be willing and able to do so.

The steps taken during the next decade to increase employment opportunities for handicapped people in the public and private sectors will determine to a large measure the significance and worth of the efforts made now or later to assure handicapped persons of equitable opportunities to participate in and benefit from vocational education.

Equity Issues in Vocational Education

Because of the abstract and sometimes abstruse nature of the equity concept, one does not think of achieving equity in an ultimate and absolute sense. Be that as it may, it remains a useful concept because of our ability to establish benchmarks by which we can measure relative movement toward the achievement of equity. It is possible across various segments of vocational education to identify certain practices or conditions that represent the achievement of equity by some standard (derived arbitrarily or through group consensus). The remainder of this paper will address the issue of equity within some of the major facets of vocational education.

Equity Through Compliance

Numerous laws have been passed by federal and state governments for the purpose of protecting the rights of handicapped persons. The fundamental aim of this legislation has been to ensure equal opportunities for handicapped persons in all facets of life over which the government exercises some measure of control: education, employment, housing, transportation, health and social services, vocational training, legal services, recreation, communications, and more. The laws which directly affect vocational education employ a two-fold approach to protecting the rights of handicapped persons. First, they prohibit discriminatory acts (unnecessary segregation, the imposition of architectural or program barriers, and denial of participation in extracurricular activities); and second, they require affirmative action (active recruitment for certain postsecondary programs, public notification of the availability of vocational training opportunities, and development of Individualized Education Programs [IEPs]).

Conscientious efforts to comply with the provisions of federal and state laws will bring schools a considerable distance toward achieving equity in vocational education. This is not to imply, however, that equity is a concept to be thought of exclusively in obligatory terms, because equity simply cannot be achieved through mandates or administrative fiat alone. If we do not understand this fact, equity will

be reduced to a mechanistic and ineffectual way of protecting human rights. The scope of this paper does not permit a detailed analysis of the sections of various laws that speak to equity concerns. Nevertheless, many of the principal equity-related requirements are addressed in the remaining segments of the paper. Neither does this paper address the equity issues inherent in various state laws, although there are many. For example, in the state of Michigan, handicapped students can participate in secondary level vocational education through the age of twenty-six, thereby extending the federal provision of a free, appropriate public education by five years. In California, an IEP must be prepared for handicapped persons enrolled in postsecondary vocational training programs. In Texas, the goals and objectives that are stated in an IEP are expanded upon through the development of an IEP implementation plan. An implementation plan is developed by each teacher for whom there are IEP goals and objectives. In Vermont and many other states, an IEP is not considered to be complete until and unless it is signed by a child's parents, thereby expanding on the rights extended to parents under federal law.

So that Congress can evaluate the extent to which different laws protect and promote the rights of the handicapped, provisions have been added to the laws that require periodic reviews of compliance. The Office for Special Education monitors state education agencies (SEAs) with respect to the implementation of P.L. 94-142. SEAs must in turn routinely monitor each school district to ensure that the provisions of P.L. 94-142 are being met locally.

The Office for Civil Rights requires SEAs to monitor the implementation of Section 504 of P.L. 93-112 and the Vocational Education Program Guidelines for Eliminating Discrimination on the Basis of Race, Color, National Origin, Sex, and Handicap of March 21, 1979. In addition, complaints of noncompliance can be issued against a local or state agency by any aggrieved individual or party. Such complaints are investigated by one or more representatives of the federal agency that has oversight responsibility for the legislation under which the complaint is filed. The vast amount of time and energy needed to implement the many legal requirements of current legislation, compounded by the time and energy involved in monitoring and being monitored, should make clear the difficulty that many vocational educators are experiencing in trying to address the issue of equity in other than legalistic terms.

Equity in Access

The best data available at this time indicate that handicapped persons are distinctly underrepresented in vocational education. In 1976, handicapped students comprised only 1.7 percent of the total vocational education enrollment, although comprising up to 12 percent of the school-age population (Project Baseline 1976).

In 1979, the Office for Civil Rights (OCR) required all public-supported secondary and postsecondary schools to submit data on vocational education enrollments. Altogether 10,534 schools filed the mandatory enrollment reports. The OCR survey has special significance because it is the first nationwide survey in vocational education in which a significant amount of enrollment data have been collected for special populations. Some relevant national totals are given in table 2.

Table 2

VOCATIONAL EDUCATION ENROLLMENTS BASED ON OFFICE FOR CIVIL RIGHTS NATIONAL SURVEY, FALL 1979

(Unedited data released September 1980)

Type of Program	*Total Enrollment*	*Handicapped Enrollment*	*Percent of Total*
Secondary & Postsecondary Programs	4,594,388	17,531	2.56
Agriculture	275,205	8,636	3.14
Distributive Education	402,135	6,518	1.62
Health Occupations	279,897	5,258	1.88
Home Economics	376,976	14,450	3.83
Office Occupations	1,466,475	20,235	1.38
Technical Education	276,324	3,648	1.32
Trade & Industrial Ed.	1,215,888	43,094	3.54
Other	301,488	15,692	5.20
Long-Term Adult	435,146	10,006	2.30
Other Occupational Pre. Prog.	3,179,060	82,014	2.58
Apprentice Training Program	104,180	383	0.37
Cooperative Vocational Ed. Programs	379,872	10,416	2.74
Work-Study Programs	74,616	3,489	4.68

According to the unedited data released in September 1980, apprenticeship programs had the lowest percent of handicapped persons (0.37 percent) enrolled, and work-study programs had the highest percent of handicapped enrollments (4.68 percent). The two areas of greatest enrollment—secondary and postsecondary programs and other occupational preparation programs (principally industrial arts)—both had enrollments of 2.6 percent. Within secondary and postsecondary programs, home economics, agriculture, trade, and industrial programs had enrollments above the mean for all programs. Enrollments in distributive education,

health occupations, office occupations, and technical education fell below the mean.

One of the limitations of the OCR survey is its failure to report program enrollments by handicapping conditions. The survey did include, however, an analysis of handicapping conditions across all program areas at the secondary level. This information is given in table 3.

Table 3

ENROLLMENT IN SECONDARY VOCATIONAL PROGRAMS BY HANDICAPPING CONDITION

Handicapping Condition	*Secondary Enrollment*	*Percentage of Handicapped Enrollment*	*Percent of Total Handicapped Enrollment Under PL 94-142*
Mentally Retarded	48,513	36.6	21.6
Specific Learning Disability	48,056	36.2	31.7
Seriously Emotionally Disturbed	9,607	7.3	8.0
Other Health Impaired	6,345	4.9	2.6
Speech Impaired	3,746	2.8	29.6
Hard-of-Hearing	3,551	2.6	0.9
Orthopedically Impaired	3,146	2.4	1.6
Multihandicapped	3,004	2.3	1.5
Deaf	1,111	0.8	1.0
Deaf-Blind	227	0.2	0.0

Equal access to vocational education has been avowed on behalf of handicapped persons at high levels of government. A statement developed jointly by the Bureau of Occupational and Adult Education and the Bureau of Education for the Handicapped is indicative of the federal position on accessibility:

> It is the position of the U.S. Office of Education that an appropriate comprehensive vocational education will be available and accessible to every handicapped person. (Federal Register September 25, 1978)

This liberal expression of accessibility stands in vivid contrast to common practice at the grassroots level where participation of handicapped persons is often

restricted. In a speech to a statewide conference of vocational and special educators, McNulty (Albright and Hux 1979) matter-of-factly describes the resistance that many vocational educators have expressed toward the placement of handicapped pupils in vocational education.

> Over the years we've had difficulties with placing handicapped students due to the attitudes of vocational teachers and the attitudes of industrial arts teachers. I spoke to a group of industrial arts teachers about a year ago, and they were very upset about the fact that Section 504 of the Rehabilitation Act says that handicapped students will have access to all programs that any other student has access to. They said: "You mean to tell me that they're going to send these kids indiscriminately into my classroom and I can't say anything about it . . ." It was (as if) to say that the handicapped students would be a safety hazard not only to themselves but to everyone else in the class (p. 8).

Although classroom teachers must be intimately involved in accommodating handicapped students, it is the responsibility of state and local school administrators to ensure that programs, services, and facilities are available to handicapped pupils on a nondiscriminatory basis. In doing so, administrators must take into account the considerations outlined as follows in Section 504 and the OCR antidiscrimination guidelines:

- Whether program offerings are provided at locations that are accessible to handicapped students
- Whether the effect of any changes in the physical plant has been to create, maintain, or increase student segregation on the basis of handicap (if so, the issue of whether such segregation is educationally justifiable will arise)
- Whether architectural or equipment barriers effectively deny handicapped students access to vocational education programs and courses
- Whether the lack of related aids or services (at the secondary level) or auxiliary aids (at the postsecondary level) effectively deny program accessibility for handicapped students
- Whether academic requirements for a particular program deny handicapped pupils access to the program due to their lack of availability in certain feeder schools
- Whether prior to the beginning of each year, schools inform all interested groups of their nondiscrimination policies

- Whether admissions quotas from feeder schools disproportionately limit students on the basis of handicap

- Whether admissions criteria (tests, grades, disciplinary infractions, recommendations, and coursework prerequisites) have the effect of disproportionately excluding protected groups of students (if so, whether the recipient can demonstrate that such criteria have been validated as essential to participation and that equally valid criteria with less disproportionate adverse effect are unavailable)

A substantial number of technical reports and guidebooks have been written to assist administrators of secondary schools and institutions of higher education to comply with the various 504 and OCR requirements (Biehl 1978).

The number of handicapped pupils seeking admission to vocational education will, in all probability, continue to increase during the years to come. For one thing, secondary special education is being strengthened with the result that increased numbers of secondary students will have IEPs. The IEP developers are likely to recognize the value of receiving vocational training as an integral part of a comprehensive secondary program. Moreover, many parents of handicapped youths are focusing their attention on the availability of quality vocational training. Their sentiments are aptly expressed by Barbara Scheiber, editor of *Closer Look*, the newsletter of the Parents' Campaign for Handicapped Children and Youth: "If we don't throw intensive effort into bringing handicapped students into the mainstream of vocational education, we will have shortchanged another generation of handicapped youth. The great promise of equality of opportunity for the disabled heralded by landmark rights legislation will be only that—a promise" (Special Education's Responsibility 1978, p.2). Through the Parents' Campaign for Handicapped Children, workshops have been held in several states for the purpose of training parents in how to gain access for their children to vocational education and how to advocate reasonable accommodations so that handicapped children can receive maximum benefit from their participation in vocational education. A similar parent awareness program has been carried out by the American Coalition of Citizens with Disabilities. As parents of the handicapped become a recognized force in vocational education as they have in special education, then access to vocational education is sure to become increasingly equitable.

Equity in the Doctrine of Least Restrictive Environment

Two of the most widely discussed concepts in the literature of the handicapped are the related concepts of least restrictive environment (LRE) and mainstreaming. Both concepts have been discussed in-depth from a vocational education

perspective (Tindall and Gugerty 1979; Dahl, Appleby, and Lipe 1978). The concept of least restrictive environment (LRE)—the instructional setting which offers the least deviation from a fully integrated program—is given a firm legal basis in civil rights legislation (P.L. 93-112, section 84.34), special education legislation (P.L. 94-142, section 121a.550), and vocational education (P.L. 94-482, section 104.312). Each of these laws requires service providers to ensure, to the maximum extent appropriate, that handicapped students are educated with nonhandicapped students, including participation in extracurricular activities. The laws stipulate further that handicapped students will not be removed from regular classes even if they need supplementary aids and services, except when the nature and severity of their handicaps necessitate it.

The concept of LRE would undoubtedly have less significance in vocational education except for the persistence of hundreds of segregated programs for handicapped persons which proliferated during the early part of the last decade under the 10 percent set-aside provision of the 1968 Vocational Education Act (VEA) Amendments. Segregated vocational programs—that is, programs operated exclusively for persons with handicaps—are not necessarily bad in themselves, provided that they constitute only one alternative in a continuum of instructional settings and provided that each program participant is given appropriate opportunities to interact with nonhandicapped persons in other ways. Admittedly, some handicapped students cannot adjust to the pace and pressures of regular classes and need the unique instructional milieu which can be created in a well-organized, learner-oriented special program. There are, however, some serious liabilities in placing handicapped students in special classes:

> Special classes isolate students from positive peer models, may make students overly dependent on teacher assistance, often do not sufficiently challenge students to perform up to industrial standards, proliferate projects and activities of little or no occupational significance, afford very restrictive training in areas having no particular interest to students and having only limited employment potential (Hull 1978, p. 7).

When a majority of vocational educators are genuinely committed to the concept of equity, special programs will pose less of a problem. As it is, many students are placed in (or counseled into) special programs as an administrative convenience. Too often, all students within a particular classification, for example, educable mentally retarded (EMRs), are placed in special vocational programs: building maintenance, food trades, greenhouse operation, office assistant, and so on. The inequity inherent in this is that special programs typically restrict the scope of occupational training that is offered; hence, an individual's employment potential is much more limited than it would be if placement were selected from an array of regular programs. It is inconceivable that all of the handicapped students in a

particular high school would be interested in pursuing occupational training in the limited number of areas for which special vocational programs are usually available, and of which many are stereotypes of the secondary labor market. Yet there are districts where it is accepted practice to place all EMRs in special vocational classes or in special work-study programs.

In an equitable system, special programs would be used primarily as springboards to regular class placements or would be used to provide training that matches as closely as possible the quality and diversity of training available in regular vocational programs. Placements would be flexible, rather than dead-end as they too often are and they would be for a week, month, quarter, or an academic year, whatever would most benefit the student.

Equity in Individual and Programmatic Accommodations

Making individual and programmatic accommodations on behalf of handicapped pupils is one of the principal means through which true equity can be achieved in vocational education. The effort to accommodate handicapped pupils can be professionally challenging and personally satisfying as well. Trying to overcome the obstacles presented by a student's disabilities can bring out a counselor's positive personal traits as well as professional skills: inventiveness, persistence, patience, creativity, and helpfulness.

Certain accommodations for the handicapped are mandatory. For example, under the regulations for Section 504, it is mandatory for a school system to provide handicapped students with supplementary aids and services, i.e., to make accommodations before removing them from regular classes. Similarly, under P.L. 94-482, states are required "to the maximum extent possible" to allocate the 10 percent set-aside funds "to assist handicapped persons participating in regular vocational education programs" (section 104.312). Unfortunately, this noteworthy regulation may be one of the most poorly implemented provisions of P.L. 94-482. This provision ought to be given primary attention when future vocational education legislation is up for consideration. If special incentives are to continue, they should be clearly targeted toward increasing access to and accommodations within regular vocational programs.

Although making accommodations must be approached primarily on a case-to-case basis, the process can be systematized. For example, it should be possible within any vocational program area to develop a checklist of accommodation considerations—considerations that will be made for each individual for whom special adaptations are necessary—

- Are equipment modifications necessary?
- Are space alterations (such as rearrangement of large objects) necessary?
- Do certain supplies, materials, and so forth need to be relocated?
- Are large print texts needed? Should written tests be prepared using primary or boldface type?
- Will special testing accommodations be needed? Extra time, oral tests, and so forth?
- Should special grading considerations be made?
- What type of reading assignments, including homework, can the student accomplish?
- Can the student take notes? Should lectures be summarized in writing?
- How should the student's parents be involved?
- Does the curriculum need to be modified?
- Does the student have preferred learning modalities? Patterns? Settings?
- What type of stress signals does the student manifest?
- What motivates the student to put forth maximum effort?
- What special things should be known about the student?

Foster, Szoke, Kapisovsky, and Kriger (1977) developed a profile of program accommodations for physically handicapped students. Their profile lists accommodations that can be made under the following headings: aids and equipment, architectural accessibility, attitudinal climate, class size, inservice preparation, instructional materials, instructional support services, specialized programs and courses, support services, and therapies (pp. 173-175). The same authors augment their program accommodations profile with a checklist by which a student's functional capacities can be assessed for the purpose of identifying the accommodations necessary for the student to participate successfully in a secondary or postsecondary program.

Dahl, Appleby, and Lipe (1978) also present a detailed discussion of procedures for accommodating handicapped students in vocational education. Their publication is particularly helpful in its discussions on making buildings, programs, and equipment accessible and operative by students with physical impairments. Tindall and Gugerty (1980) have conducted a national search for the purpose of compiling a list of prosthetic devices and equipment modifications that aid handicapped students in receiving vocational training and in performing related job skills. Their compilation is scheduled for publication in 1981. Tindall also is directing a national project to train key leaders in vocational education in procedures for modifying vocational curricula for handicapped students. The outcomes of the project will be published by the Wisconsin Vocational Studies Center in 1981.

Where it has been done successfully, the making of accommodations has not been regarded as the sole responsibility of the teachers in whose classes handicapped students are placed. Rather, it has been approached cooperatively with assistance coming from school administrators, special educators, parents, counselors, psychologists, occupational therapists, and other appropriate support personnel. The appropriateness of particular accommodations has been systematically reviewed by designated representatives of the school system (persons other than the teacher). In addition, the students and their parents have frequently been asked to comment on the perceived effectiveness of the accommodation efforts. Another characteristic of school systems where accommodations have been made successfully is that teachers have been taught how to identify the various circumstances that indicate a need for special accommodations.

In the effort to accommodate handicapped students, one comes face to face with the facet of equity which states that equal opportunity for some individuals—in this case, handicapped individuals—requires unequal or favored treatment. Some vocational teachers may find it difficult to put this principle into practice. For equity to be achieved, however, special accommodations must be made.

Equity in Policymaking

Section 504 of the Rehabilitation Act of 1973 prohibits the enactment of state or local policies or the adoption of methods of administration that discriminate against handicapped persons or other protected groups. Moreover, under present legislation, it is no longer necessary for an aggrieved individual to show that a particular policy, directive, or method of administration is discriminatory by *intent;* it is sufficient to simply demonstrate that a particular policy has the *effect* of discrimination. Thus we can expect increased monitoring of state and local

vocational policies by the Office for Civil Rights (the overseers of Section 504), and we can expect advocates for the handicapped plus activists for the disabled to maintain vigilant surveillance against the adverse effects of present and future vocational education policies.

When Section 504 was originally adopted, a one-year period was designated in which agencies covered by Section 504 were required to review all policies and practices and the effects thereof to ascertain whether they met the antidiscrimination and affirmative action provisions of 504. It was further stipulated that handicapped persons or organizations representing handicapped persons were to be consulted as part of these reviews. From the number of discriminatory practices that persist, one can only conclude that this requirement was met at a rather superficial level. Nevertheless, this requirement set an important precedent—that of actively involving handicapped persons in the review of agency policies and in the remediation of their discriminatory effects. For equity to be achieved in vocational education, handicapped persons and their advocates must continue to be involved in policymaking, policy reviews, and policy revisions. This recommendation will be achieved in part under the proposed vocational education regulations for P.L. 96-46 which require all local advisory councils to include in their membership one or more persons who represent the needs and concerns of handicapped persons. If this requirement is adopted, handicapped persons will then have achieved mandatory representation on vocational education advisory councils at the local, state, and federal levels and thus will be formally involved in policy development and reviews at all levels.

To counteract the possibility that state and local policies may discriminate against protected groups, the Office for Civil Rights, in collaboration with the Bureau of Occupational and Adult Education, has instituted a set of procedures whereby each state agency responsible for the administration of vocational education must submit "the methods of administration (MOAs) and related procedures" it will follow in carrying out its civil rights obligations under the antidiscrimination Guidelines of 1979. The MOAs must show how the state agency will determine whether its policies and practices are free from unjustified discriminatory effects (Dunham and Tatel 1979). The MOA document must also describe the steps to be followed in reviewing local agency policies to ensure their compliance with civil rights laws. Under the 1979 Guidelines, at least 20 percent of the agencies which provide vocational education will be reviewed each year—15 percent through a desk audit of local policies and enrollment data and 5 percent through an on-site visit of programs. The MOA provision gives handicapped individuals and their advocates another forum for reviewing vocational education policies and practices and in time should prove an effective vehicle for eliminating inequitable policies and practices.

There are several documents that provide a basis for examining a state's policies and practices that have an impact on handicapped persons. Five noteworthy documents must be submitted to the federal Department of Education as a condition for receiving funds under P.L. 94-482. These include: a general application of twelve assurances of compliance with federal regulations; a five-year state plan (which will become a three-year plan under the Education Division General Administrative Regulations (EDGAR); an annual program plan; an annual accountability report; and an annual evaluation report (submitted by the states' advisory councils for vocational education). The last two documents function as accountability reports in that they document the extent to which the activities, programs, and services described in the five-year plan have been carried out as planned and the extent to which they have met the identified needs of each state.

All of these documents must be reviewed and approved by the state board for vocational education. In essence, therefore, each document has a provision for public input and serves as a vehicle for allowing handicapped persons and their advocates to have a voice in policymaking and policy reviews.

If handicapped persons or their advocates are unable to make effective use of public hearings, advisory councils, or other forums for bringing discriminatory practices to the public's attention, they may appeal to federal agencies for assistance. The Office for Civil Rights conducts investigations (on an individual or class action basis) of alleged discriminatory practices. The Office of Special Education employs child-complaint specialists whose responsibility it is to follow up on all complaints which allege a denial of rights. Furthermore, any handicapped participant in vocational education who is on an IEP is protected by the due process provisions of P.L. 94-142 under which the child or the child's parents can request a due process hearing to determine whether any rights under P.L. 94-142 have been violated.

Even though inequities may persist because of discriminatory policies or for want of affirmative action policies, the mechanisms are in place whereby handicapped persons and their advocates can play an active role in formulating vocational education policies or reviewing them. Backed with the investigatory powers of the Office for Civil Rights, handicapped persons need only to be able to prove the discriminatory effects of vocational education policies at any level (federal, state, or local) or in any form (law, regulation, policy, directive, or procedure) in order to bring about an impartial investigation. Hence, it should only be a matter of time before policymakers will come to welcome the input of handicapped persons and their advocates so that policies win broad-based support from their inception.

Equity in Funding

Vocational education's capacity to accommodate handicapped persons—not only admit them—depends in large measure on the availability and effective utilization of earmarked funds, that is, funds set aside for the purpose of aiding handicapped students to participate successfully in vocational education. Historically, leaders in vocational education have not had much success in acquiring significant amounts of state or local designated funding for special populations (Comptroller General 1974, p. ii). Rather, the impetus for earmarking funds for the benefit of special populations has come from the federal level.

In the 1968 Amendments to the Vocational Education Act of 1963, Congress stipulated that 10 percent of the basic state grants for vocational education was to be set aside for programs and services which directly benefit handicapped pupils. The potential usefulness of the 10 percent set-asides was not immediately realized. In fact, in the early years of the set-asides, several states returned portions of these funds to the federal government for want of "opportunities" to spend them on a population which presumably had its needs met by other segments of public education (Olympus Report 1974). In time, however, states found uses for the set-asides, most commonly for the development of special programs (segregated classes). They were also used for staff development, curriculum modification, materials adaptation, and research activities.

When the Vocational Education Act came before Congress for renewal, the 10 percent set-aside provision was retained in the legislation, but a significant stipulation was added: that to the maximum extent possible the 10 percent set-asides were to be used to help handicapped pupils succeed in regular vocational education programs. Title II of the Educational Amendments of 1976 also stipulated that the 10 percent set-asides could only be used to cover excess costs. Thus state or local vocational funds in an amount equivalent to the basic per pupil costs for vocational education would have to be spent on handicapped pupils before the federal set-asides could be used. Moreover, Title II introduced a requirement that the federal set-asides had to be matched with state or local funds on a 50/50 percent basis. The intent of the 50 percent matching requirement was to increase by 100 percent the actual dollars available to assist handicapped students; the result was a furor among state and local administrators. Equity aside, vocational leaders complained that they could not find the dollars—even on an aggregate basis—to make the required 50 percent match. Thus an active campaign was launched to get this provision repealed, and in part the repeal effort met with success in P.L. 96-46. P.L. 96-46 makes it possible under certain circumstances to sidestep the 50 percent matching requirement. In cases of unreasonable hardship, compliance exceptions can now be made. Certain advocates for the handicapped view the elimination of the matching requirement as discriminatory and inequitable

in that handicapped pupils are denied an equal opportunity to benefit from state or local funds.

According to the Office for Civil Rights, funding practices have often had the effect of discriminating against handicapped students, most often in ways which obfuscate rather than openly violate the intent of equal rights legislation. The Office for Civil Rights consequently has targeted funding practices in vocational education as an area for extensive investigation. Examples of the types of funding inequities to be investigated by OCR are described as follows:

- Do state funding practices have the effect of denying or restricting the right of handicapped persons to participate in vocational education? (For example, if a student is weighted at 2.5 for reimbursement purposes in special education, but only 1.5 in vocational education, this could have the effect of discouraging placement in vocational education.)

- Do local education agency (LEA) applications or other eligible recipient (OER) applications for assistance ensure that supplementary aids and services will be provided so as to not deny handicapped persons the opportunity to benefit from vocational education?

- Are the expenditures made with the federal set-asides for the handicapped used solely for the purposes for which they are granted? Are they used to benefit nonhandicapped students?

- When an LEA or OER applies for funds for a separate program or facility for the handicapped, do they substantiate a need for such a program and do they provide assurances that regular programs will be made available to handicapped persons without respect to the availability of the special program?

- What procedures are in place to ensure that funds for separate programs and facilities are granted only for students who cannot bene.it from regular programs even with supplementary aids and support services?

- What procedures are used to ensure that all separate programs and facilities are comparable to the programs and facilities provided for nonhandicapped students?

- Do funding formulas and allocation procedures provide a lower per capita payment for handicapped students than for nonhandicapped students after costs for supplementary instruction, aids, and services have been subtracted?

- Do state funding formulas and allocation procedures take into account the differential costs in providing supplementary instruction, aids, and services to handicapped students in different regions within a state?

The purpose of the OCR investigations is to ensure that handi capped persons are benefitting on an equitable basis from vocational education funds, irrespective of the source of the funds. To date, OCR has investigated the funding practices of only a small number of states and is presently reviewing the special procedures to be followed in their investigations.

At this point in time, we do not have an accurate estimate of the level of funding that it would take to make all vocational programs accessible to the handicapped, or what it would cost to accommodate all handicapped students who can qualify for admission to vocational education at either the secondary, adult, or postsecondary level. For certain, it would far exceed the current 10 percent set-asides or even the 50 percent required match above excess costs. For equity to be achieved, therefore, states must begin to seek ways of putting additional earmarked revenues into vocational education for the purpose of assisting handicapped persons. This is paramount for even a modest degree of equity to be achieved. Most states have a strong lobby for enacting special education legislation. Lobbies include consumer groups, parent groups, professional groups, and coalitions of groups. Vocational leaders need to make inroads into these groups for the purpose of winning their support in seeking state and local funds for additional personnel development, teacher aides, curriculum modification, specialized equipment, facilities modification, and program modification.

Equity in Personnel Preparation

The effort to assimilate handicapped persons in vocational education has vividly pointed out the need for and importance of continuous professional development across all levels of vocational educational personnel: classroom teachers, program administrators, state consultants, and teacher educators. The perceived needs of these groups have been reported in the literature. Phelps and Thornton (1979), Andrehka, Blank, and Clark (n.d.), and Howard (1979) have identified the professional development needs of state consultants and teacher educators with respect to the handicapped. Albright, Pinchak, and Nichols (1975), Meers (1978), Phelps and Clark (1977), Sheppard (1975), and Shill (1976), together with numerous others have identified the needs of teachers and local program administrators. General discussions on personnel preparation as it pertains to vocational education for the handicapped are frequent in the literature (Reynolds 1980).

A finding of considerable importance is that inservice training can affect the attitudes of educators toward the handicapped, generally in a positive direction. This is an equity issue. Where options exist to allocate or not to allocate funds for training, the question of benefits to the teaching staff should be considered.

The most costly and often highly touted training approaches-statewide workshops and university courses, for example—may not be the most effective in terms of long-term impact. Much has been said about the positive outcomes of informal training achieved through team teaching, building-level information sharing sessions, teacher-to-teacher consultation, and so forth. It remains the responsibility of leaders at various levels, however, to arrange for ongoing assessments of training needs, to monitor the effectiveness of various training approaches, and to make the appropriate decisions.

Teacher certification is an area where serious inequities have been allowed to persist. Only a small number of states have adopted certification requirements which ensure a particular level of competence for personnel who provide vocational instruction for handicapped students (Howard 1979). In Texas, for example, from 1968 to 1978 trade and industrial teachers were not required to have any formal training in working with handicapped students even though these teachers were employed exclusively to teach handicapped students in special vocational programs. Efforts to require these teachers to acquire skills in working with handicapped pupils were repeatedly blocked at the state level. Finally, after ten years of such efforts, the state passed a regulation which required all prospective teachers, including new trade and industrial education (T and I) teachers, to receive six clock hours of training to meet the unique needs of handicapped pupils.

Assuming that a first-year T and I instructor has five contact hours per day with handicapped students for 180 instructional days per year, a simple mathematical reality becomes readily apparent: beginning T and I instructors in Texas are spending 900 hours per school year attempting to teach very vulnerable children, a specialized job for which these instructors have received six clock hours of instruction. Many other states persist in following similarly inequitable certification practices. When teachers are allowed (and even forced) to teach handicapped students, without having received sufficient training, numerous inequities are brought to light. For example, the teacher is unnecessarily forced to learn through trial and error, with the already vulnerable student the greater victim of the errors. Without knowledge of the skills whereby class and individual performances may be effectively managed, uninformed teachers are seriously handicapped, as are their students. The students in these situations—who may already manifest serious deficits in achievement—often develop even greater deficits, lose interest in school altogether, and drop out of school.

Teachers who teach only one handicapped student in a regular vocational class need training to accommodate handicapped students as much as, if not more than, vocational instructors who work exclusively with handicapped pupils do. With these teachers, successful training can often be accomplished by linking them up with a special educator who is able to share insights about the needs of handicapped students and to suggest adjustments that can be made to accommodate handicapped students successfully.

Equity in the Representation of Handicapped Persons in Instructional Materials

Information about handicapped persons and the variety of work that they perform has too often been absent, or these individuals have been presented as stereotypes in vocational and career education materials. This unfair representation has a variety of possible negative consequences. For one thing, it denies handicapped persons positive role models of what they might become. For another, it leaves nonhandicapped persons with the impression that it is unusual for handicapped persons to be employed except in stereotyped roles.

The Consortium for Appropriate Representation of Exceptional Persons in Education Materials has been formed under the auspices of the Council for Exceptional Children and has issued guidelines for appropriate representation in educational materials of handicapped and gifted people. These guidelines were adapted by the Office of Career Education in the U.S. Department of Education and disseminated to developers of curriculum materials and instructional media. The following statements are representative of the suggested guidelines:

- Include exceptional persons (handicapped and gifted) and information about them in all instructional materials. At least 10 percent of all references to and pictures of students and workers should be of exceptional persons.
- Represent all types of exceptionalities in career education materials, and ensure that materials represent workers with handicaps of varying degrees of severity for any one type of exceptionality.
- Show exceptional persons in work settings with nonexceptional persons.
- Depict persons with exceptionalities in the same wide range of work roles assumed by nonexceptional persons. Avoid stereotyped work settings.
- Infuse knowledge of exceptional persons in careers into many career education lesson plans. Do not rely on one lesson entitled "Careers for the Handicapped."

Implementation of the full set of guidelines (available from the Office of Career Education) would represent a concrete step toward the elimination of inequities for the handicapped in vocational education. As vocational education texts are revised or developed, full consideration should be given to the equitable portrayal of all special populations.

CONCLUSIONS AND RECOMMENDATIONS

For the past twenty years, there has been a steady escalation in our awareness of the potential which persons with various disabilities have for leading productive lives. Medical advancements have reduced the debilitating effects of many chronic conditions. Prosthetic devices and various new therapies have increased the ability of many handicapped persons to function independently. Laws have been enacted to increase the benefits that handicapped persons derive from education, rehabilitation services, legal assistance, and other essential human services. Incentives for employing handicapped persons have been increased. The general public's awareness of handicapped persons—their needs and their abilities—has been greatly magnified. Yet we still remain on the frontier in our treatment of the handicapped. More technological and methodological advancements and greater personal and corporate awareness must be achieved before handicapped persons can pursue schooling, jobs, housing, and human services without a negative regard for their disabilities. The pursuit of these advancements and this increased awareness should be looked upon at least in part as the pursuit of equity—fair, unbiased, and, if necessary, favored treatment.

With respect to vocational education, there are a significant number of laws and regulations which are aimed at achieving equity for handicapped persons. But it is too early to assess the actual impact of many of these regulations. If vocational leaders can meet the provisions of these various regulations, considerable progress toward achieving equity will be made. Beyond the regulations, other equity issues need to be examined. Handicapped persons can often articulate these issues and deserve to be heard through local, state, and national advisory councils and other forums for public input. Parents, advocates, and professionals also have useful insights to share with respect to the equitable treatment of handicapped persons. If a climate of trust can be established among all interested parties, it should be possible for these various constituencies to collaborate in pursuing fair treatment (or if necessary, favored treatment) in all facets of vocational preparation.

Greater access to vocational programs is needed, especially to regular programs, youth organizations, vocational guidance services, and cooperative vocational education programs. An emphasis on accommodating handicapped persons is also needed. A wide range of accommodations must be explored using federal, state, and local resources. Among the accommodations to be considered are equipment modifications, prosthetic devices, materials adaptations, curriculum modifications, special equipment, instructional aids, tutors, and so on. There is a continuing need for the research and dissemination of information regarding successful efforts to accommodate students with a variety of disabilities.

Handicapped persons deserve to have a greater voice in vocational education policymaking at all levels. Their active involvement in vocational advisory committees in one way to achieve increased participation in the entire handicapped issue. The number of handicapped persons who are employed in vocational education is much in need of enlargement, as is the effort to attract handicapped persons to preservice teacher education programs. Handicapped persons and their advocates need to become more skillful at ensuring that the concerns of handicapped persons are reflected appropriately in key documents: state plans, accountability reports, program evaluations, teacher recruitment, public relations materials, and so forth.

For handicapped persons to derive maximum benefit from vocational education, a sufficient level of funding must be designated for the purpose of providing specially designed instruction, support services, and reasonable accommodations. The present 10 percent set-aside provision of P.L. 94-482 does not yield enough funds to accommodate appropriately the number of handicapped individuals who may wish to participate in vocational education at any given time. Consequently, the cost of accommodating handicapped students must be borne in larger measure by state and local education agencies. Under P.L. 94-142 and 93-112, education agencies must take steps to provide the supplementary aids and services that will make it possible for handicapped students to participate successfully in vocational education. If sufficient funds are not made available for assisting handicapped persons, then parents and advocates will be forced to exercise their due process rights as a principal means for securing adequate assistance.

When P.L. 94-482 comes up for reauthorization, the 10 percent set-aside provision should be continued. Moreover, provisions should be made which *ensure* that the set-asides are first expended on supplementary aids and services that make it possible for handicapped students to be accommodated in regular programs. Agencies should be obliged to give evidence that all possible accommodations have been made in regular programs before being permitted to expend any set-asides on separate programs for the handicapped.

For equity to be achieved in vocational education, the personnel who work with handicapped students must be trained in how to relate to and work with handicapped persons. Training of this nature should be required of all teachers and prospective teachers. Minimum certification standards should be in place for vocational teachers who work with handicapped persons on a full-time basis. As a minimum, all vocational teachers should be required to demonstrate an awareness of the accommodations that make it possible for persons with particular handicaps to experience maximum success in vocational education.

Billions of dollars are spent each year in our efforts to assist disabled persons. However, only a small percentage of that amount goes into vocational training or rehabilitation. For handicapped persons to achieve the important goal of independent functioning, public leaders must do considerably more than ensure the right of handicapped persons to participate in vocational education as it now exists: they must ensure that vocational education has the resources to accommodate the unique needs of handicapped persons. Anything short of the genuine accommodation of unique needs falls short of a genuine commitment to pursue equity in vocational education.

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Before vocational educators can adequately meet the special needs of special groups, they must be committed to a philosophy of equitable education. The issue of equity in education has received a great deal of attention over the last ten years from the legislative, judicial, and academic sectors. As a result of this attention, research and analysis have shown that the term "equity" has a different connotation for nearly everyone who has attempted to define and apply it to educational programs. In addition, a host of related terms such as equality, disparity, and discrimination are a part of the vocational educator's daily vocabulary.

In an attempt to help vocational educators to articulate a definition of equity, the National Center for Research in Vocational Education has commissioned seventeen papers on equity from three broad perspectives—academic, vocational, and special needs. The authors in each of the three groups provide their own perceptions of and experiences with equity in education to bring vocational educators to a better understanding of this complex but timely issue.

The National Center is indebted to these seventeen authors for their contribution to furthering research on equity in vocational education.

We are also indebted to Dr. Judith Gappa, Associate Provost for Faculty Affairs at San Francisco State University for reviewing and synthesizing all seventeen papers. Special thanks also go to Cindy Silvani-Lacey, program associate, for coordinating the papers and to Regina Castle and Beverly Haynes who spent many hours typing manuscripts.

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